

**METHOD, APPARATUS, AND COMPUTER PROGRAM PRODUCT FOR  
IMPLEMENTING POINTER AND STAKE MODEL FOR FRAME  
ALTERATION CODE IN A NETWORK PROCESSOR**

Abstract of the Disclosure

5       A method, apparatus and computer program product are provided for implementing a pointer and stake model for frame alteration code in a network processor. A current pointer and a stake are provided for a packet selected for transmit. The current pointer is maintained for tracking a current position for frame alteration operations in the packet. The stake is  
10      maintained for tracking a start of a current header for frame alteration operations in the packet. The current pointer is used by frame alteration code instructions to specify a sequence of operations relative to the current pointer. The specified frame alteration sequence is compact in terms of code size to operate on data within a small window of bytes. Advance  
15      pointer instructions allow the current and stake pointers to be advanced an arbitrary number of bytes into the packet.